

HILLER 17-3-3

IN THE CLAIMS

1. (Currently Amended) In a communications system comprising at least two wireless service areas, ones of said service areas including a network controlling element having an interface to a respective data network gateway, wherein a communication path is maintained between network controlling elements in respective pairs of said wireless service areas,
5 A a method for providing connectivity for a Mobile Node (MN) with at least two of said respective data network gateways as the MN moves from a first service area to a second service area~~wireless communication service areas, wherein a communications channel is provided between the at least two service areas,~~ the method comprising the steps of:
10 establishing plural communications channels via a common RF link between the MN and [a] the network controlling element at the second service area~~network controlling element,~~ a first of the plural channels being arranged for connection to the data network gateway interface for that second service area and a second of the plural channels being arranged for connection, via the communication path maintained~~channel~~
15 ~~provided between that~~ the first service area and another the second service area, to the data network gateway interface for the first~~another~~ service area.

2. (Original) The method of claim 1 wherein the step of establishing plural communications channels is implemented in a network interface, and the network interface associates each established communication channel with the MN and dictates to which service area network controlling element each of the communication channels is
5 to be routed.

HILLER 17-3-3

3. (Original) The method of claim 1 wherein the step of establishing plural communications channels further comprises:

establishing a multiple of communication channels between the service area network controlling element and an MN in accordance with a standard being followed by the communication network;

generating signaling information that associates each established channel to the MN and the service area network controlling element; and

routing the established communication channels from the service area network controlling element to the another service area based on the signaling information.

4. (Original) The method of claim 1 wherein multiple data serving nodes are simultaneously accessed by routing communication channels from the service area network controlling element to a network controlling element coupled to a corresponding data serving node in the another service area.

5. (Original) The method of claim 2 where the network interface is established by an MN.

6. (Original) The method of claim 2 where the network interface is established by a network controlling element.

7. (Original) The method of claim 2 where the network interface is established by a data serving node.

HILLER 17-3-3

8. (Original) The method of claim 1 wherein ones of the service area network controlling elements are interfaced to a data network via corresponding ones of a plurality of data serving nodes (PDSN) and comprising the additional step of:

performing a handoff between the service area network controlling element, and a
5 network controlling element interfaced to a data network gateway at the another service area, whereby, during the handoff, communication channels established and accessed at the network controlling element of the another service area are routed from that network controlling element to the service area network controlling element.

9. (Original) The method of claim 8 where, upon completion of the handoff, the communication channels routed between the service area network controlling element and the network controlling element of the another service area are removed and the MN communicates with the service area network controlling element
5 via communication channels established and accessed during the handoff.

10. (Original) The method of claim 8 where the handoff is performed in accordance with a standard being followed by the wireless communication network.

11. (Original) The method of claim 8 where the handoff is initiated by the service area network controlling element.

12. (Original) The method of claim 8 where the handoff is initiated by the MN.

13. (Original) The method of claim 8 where the handoff is initiated by a data serving node coupled to the service area network controlling element.

HILLER 17-3-3

14. (Currently Amended) In a communications system comprising at least two wireless service areas, ones of said service areas including a network controlling element having an interface to a respective data network gateway, wherein a communication path is maintained between network controlling elements in respective pairs of said wireless

5 service areas,

a network interface provided at a serving network controlling element and operating to establish plural communications channels via a common RF link between a served Mobile Node and the serving network controlling element, a first of the plural channels being arranged for connection to the data network gateway interface for that

10 serving network node and a second of the plural channels being arranged for connection, via the communication path maintained between the serving network controlling element and a network controlling element at another service area, to the data network gateway interface for the another service area.